

Variations in cognitive responses to fear in anxiety disorder subtypes

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While it is reported in the literature that cognitive responses to fear, especially the fear-of-fear, is more common among agoraphobics than among simple (specific) phobics, few comparisons of agoraphobia with other anxiety disorders have been conducted to date. Subjects in this study included 80 males and females, 20 in each group, diagnosed, according to DSM-III-R, as either Agoraphobia with Panic Attacks, Panic Disorder without Agoraphobia, Generalized Anxiety Disorder, or Simple (specific) Phobia. An additional 20 males and females (matched for sex, age, and education) with no psychiatric diagnosis served as a control group. Subjects were administered inventories measuring depression and several aspects of anxiety. It was hypothesized that Agoraphobia and Panic Disorder subjects would (a) perceive bodily sensations as more dangerous than would Simple (specific) Phobics, Generalized Anxiety Disorder, and Normal Control subjects; and (b) differ from the other groups in their interpretation of bodily sensations more than in their interpretation of external events. The results indicated that, as hypothesized, the Agoraphobia and Panic Disorder subjects did not differ significantly from one another on any of the measures, assigned higher cost (negative valence) and probability to unpleasant events and, in general, found anxiety most discomforting with high levels of concern for its consequences. The latter groups were less anxious and depressed than the Agoraphobia and Panic Disorder subjects.

Key words: cognitive responses, fear of fear, anxiety

Variations in cognitive responses in anxiety disorder subtypes

In the last few decades, increased attention has been directed toward the investigation of the ideational components of anxiety disorders [9, 8, 35]. In an early study, Beck, Laude, and Bohnert [6] found that subjects with acute anxiety attacks reported consistent danger-related thoughts or visual fantasies just prior to, or during, the onset of a panic attack. Similarly, written accounts of dreams by anxiety patients and normals revealed that the former reported more dreams of social rejection or physical attack [28].

An association between anxiety and perceived threat was also suggested by Finlay-Jones and Brown [20] and later by Breitholtz, et al [9] and Belfer & Glass [8]. Finlay & Brown [20] studied female patients traditionally diagnosed as having anxiety, de-

pression, or both. Patients were asked to report life events which they considered to be "severe" with respect to long-term consequences. The frequency of life events in the year prior to the onset of their disorder was compared with the frequency of events in the same time period reported by a group of women without severe psychiatric disorder. The author concluded that severe loss was a causal factor in the onset of depression and that severe danger was a causal factor in the onset of anxiety states.

The perception of threat in anxiety disordered patients was further investigated by Butler and Mathews [11] and Kindt and Brosschot [35] who found that anxious individuals assigned higher subjective probabilities to negative events than did normals. These results were interpreted by Mathews and MacLeod [43] to indicate that heightened anxiety states arise as a result of overactivity of cognitive structures involved in evaluating personal threat (i.e., "danger schemata"). This finding has been reflected in the more recent literature on anxiety, particularly with panic disorder [15, 16, 17, 18].

Whereas all anxiety disorders may be characterized by focusing on danger related cues, Foa, Steketee, and Young [25] suggested that the danger cues differ among the various subtypes of the anxiety disorders. The danger cues of agoraphobics seem to have elicited the most interest. Weekes [66] initially proposed that agoraphobics fear, fear itself (i.e., they respond with fear to fear responses). Expanding on the fear-of-fear hypothesis, Goldstein and Chambless [29] suggested that the agoraphobics' fears include maladaptive cognitions about the potential harm that might ensue from experiencing anxiety. A later study, and subsequent literature focused on the fear of loss of control of one's emotions as an important element [18, 68]. In the 1978 study, Goldstein & Chambless divided the fear-of-fear into two components: 1) a fear of bodily sensations associated with panic attacks that plague agoraphobics, and 2) maladaptive thoughts about the possible consequences of panic such as dying or becoming insane from this high anxiety experience. This concept was later tested with 271 outpatient anxiety disordered subjects in which agoraphobics were found to score higher than all other groups on fear of body sensations associated with anxiety [14]. In addition, Belfer and Glass [7] found that agoraphobics scored higher on the belief that anxiety is catastrophic than did simple phobics and normals. Warren, Zgourides and Jones [65] also compared a sample of anxiety disordered clients with normals and found the overestimates of subjective probability and cost of catastrophic events along with irrational beliefs to be a particularly potent predictor of avoidance in agoraphobics.

In an attempt to provide a conceptual framework to the empirical studies on the psychopathology and treatment of anxiety disorders, Foa and Kozak [24] proposed that anxiety-disordered individuals are characterized by pathological fear structures which serve as a blueprint for fear behavior. They further suggested that each fear can be characterized by a distinct fear structure. Accordingly, agoraphobics' fear structure is characterized by a strong association of interoceptive responses with danger whereas simple phobics structures are defined by associations between external stimuli and threat. The hypothesis that agoraphobics, but not normals, were more likely to interpret ambiguous information as threatening, only when it was related to their bodily sensations, comes from evidence found by McNally and Foa [45]. They

also found that threat associated with arousal-related events was particularly high for agoraphobics who interpreted these events as “highly probable” and “highly costly”. However, few studies to date have investigated GAD and simple phobics showing such a cognitive bias [3]. The present study compares Panic Disorder (PD) (with and without Agoraphobia), Generalized Anxiety Disorder (GAD), and Simple (specific) Phobia (SP) on a variety of measures which tap into their fear structures (i.e., on what cues are associated with fear).

Method

Subjects were 29 males and 71 females interviewed according to the Anxiety Disorder Interview Schedule-C Revised [19] and qualified for DSM-III-R criteria for either Panic Disorder with or without Agoraphobia, Generalized Anxiety Disorder or Simple Phobia [1].¹ An additional group of seven males and 13 females, matched for sex, age, and education to the psychiatric groups, served as controls. Subjects were recruited from three outpatient psychiatric/psychological clinics in Eastern Pennsylvania, USA. The characteristics of this sample are described in Table 1.

Measurements

Subjects' characteristics

Table 1

	Normals (n=20)	Simple Phobias (n=20)	Generalized Anxiety Disorders (n=20)	Agoraphobias (n=20)	Panic Disorders (n=20)	p
Age	36.00	31.60	40.15	36.05	33.80	
Sex	7 (M) 13 (F)	7 (M) 13 (F)	2 (M) 18 (F)	5 (M) 15 (F)	8 (M) 12 (F)	
Education	16.90*	13.55	13.90	13.00	13.00	.05
Age of Onset	-	22.80**	20.75	31.45	31.80	.001

* Normal controls differ from the remaining groups.

** Simple phobics differ from the remaining patient groups.

Mood State Measures

Beck Depression Inventory (BDI) [5] is an inventory of 21 items each containing several mood related statements. This measure has since been revised (BDI-II). Individuals are directed to select the statement which best describes the way in which they have been feeling for “the past week including today”. The inventory yields a total score which represents the level of depression.

1. At the time of the initial assessments of subjects, DSM-III-R was in effect.

State-Trait Anxiety Inventory (STAI) [56] is a self-administered inventory comprised of two scales; *S-Anxiety Scale* (STAIS) measuring state anxiety and the *T-Anxiety Scale* (STAIT) measuring trait anxiety. Each contains 20 statements and yields a total score ranging from 20 to 160.

Fear-of-Fear Measures

Three questionnaires were adapted from those developed by Butler and Mathews [12]: The *Interpretation Questionnaire*, the *Subjective Cost Questionnaire*, and the *Subjective Probability Questionnaire*.

The *Interpretation Questionnaire* requests subjects to interpret information regarding ambiguous internal and external stimuli, all of which might potentially be construed as threatening. It consists of 14 brief, ambiguous scenarios presented in booklet form. Seven scenarios involve internal stimuli (e.g., “You feel discomfort in your chest area. Why?”) and seven involve external stimuli (e.g., “You wake with a start in the middle of the night, thinking you heard a noise, but all is quiet. What do you think woke you up?”). For each scenario, subjects were requested to jot down the first explanation that comes to mind. An independent rater classified subjects’ open-ended responses to the internal scenarios as either anxiety-related, harm-related, or benign. For example, if the internal stimuli in the scenario cited above were interpreted as an impending panic attack, the response was classified as anxiety-related. If it were interpreted as an impending heart attack, the response was classified as harm-related. If it were interpreted as indigestion, then it was classified as benign. Responses to the external scenarios were scored as either related or unrelated to threat.

After writing their response to the open-ended question, subjects were instructed to turn the page and rank-ordered three explanations with respect to the likelihood of their coming to mind in a similar situation. Only one of the explanations represented a threat. The order in which the threatening explanation was presented was randomized across scenarios.

Four scores were obtained from this questionnaire: the number of ambiguous internal scenarios interpreted as threatening on the open-ended question (possible range of scores, 0-7); the number of ambiguous external scenarios interpreted as threatening on the open-ended question (possible range, 0-7); total threat score for the seven internal scenarios, obtained by adding the rankings (possible range, 0-14); and total threat score for the seven external scenarios, obtained by adding the rankings (possible range, 0-14).

The *Subjective Cost Questionnaire* assesses the cost (negative valence) of 20 potentially unpleasant events. Subjects were asked to rate each item on a 0 to 8 Likert scale with respect to “How bad would it be for your . . .?” Half of the items pertain to arousal-related events (e.g., “To be short of breath”). The remaining items refer to generally unpleasant experiences (e.g., “To be mugged but not seriously hurt”). Two scores were obtained from this questionnaire; the mean score for arousal-related events and the mean score for nonarousal-related events. Possible scores range from 0 to 8 for each measure.

The *Subjective Probability Questionnaire* assesses the estimation of the likelihood that the events listed on the Subjective Cost Questionnaire would happen. Subjects

were asked to rate each item on a 0 to 8 Likert scale with respect to “How likely is it that ...?” (e.g., “You will be short of breath”, “You will be mugged, but not seriously hurt”). Two scores were obtained from this questionnaire which were the mean score for arousal-related events and the mean score for nonarousal-related events. Possible scores range from 0 to 8 for each measure.

The *Anxiety-Sensitivity Index* (ASI) [50, 51] was developed to measure the level of anxiety sensitivity and concern about real or imagined consequences of anxiety. This measure contains sixteen items scored from 0 to 4. Total scores range from 0 to 64.

The *Anxiety-Thought Inventory* was designed to measure individuals’ ideas and attitudes associated with anxiety. It contains five negative (e.g., “High anxiety is harmful”, “High anxiety should be avoided”) and five positive (e.g., “High anxiety won’t really hurt me”). This inventory yields two scores, one for positive and one for negative attitudes based on a scale from 0 to 8. Zero = “Strongly disagree” and 8 = “Strongly agree”.

The *Body Sensations Questionnaire* (BSQ) [13] is a 17-item scale concerning sensation associated with autonomic arousal. Each item is scored on a scale from 1 to 5 with one representing not fearful and five, extremely fearful.

Results

Means and standard deviations were computed for each group and compared through the use of analysis of variance. Where significant main effects were obtained, a *post hoc* analysis (Neuman-Kuhls) was performed ($p = .05$) to determine the source of differences. An intercorrelation among the measurements was also performed, both overall and for each group, in an attempt to explore the relationships among a different measure of a fear of fear.

Subject characteristics

ANOVAs were performed on the variables listed in Table 1 (age, sex, education, age of onset). They revealed three differences: The normal controls were more educated than the anxiety disorder groups who did not differ from one another; the normal controls were also less depressed than the anxiety disordered group, who again did not differ from one another; and the simple (specific) phobics evidenced significantly earlier age of onset than the remaining subjects.

Fear of Fear

One way ANOVAs revealed that the Agoraphobia and Panic Disorder groups were

Table 2

Mean and Standard Deviations for Mood and Anxiety States

		N (n=20)	SP (n=20)	GAD (n=20)	AG+P (n=20)	PD (n=20)
BDI	X	5.05***	8.95	11.45	15.05	15.75
	SD	4.72	5.73	5.92	6.00	5.24
STAI-S	X	32.21	43.45	49.50	56.20	59.71
	SD	10.57	9.75	12.08	14.21	12.64
STAI-T	X	31.90	42.10	44.80	53.90	54.80
	SD	8.75	9.65	9.18	13.42	10.31

n=100

		N (n=20)	SP (n=20)	GAD (n=20)	AG+P (n=20)	PD (n=20)
INTQ [open ended]	X	.30	2.20	2.10	4.30	3.05
	SD	.47	2.31	1.86	2.74	2.21
INTQ [closed ended]	X	150	.96	4.70	7.60	7.80
	SD	182	4.05	3.39	4.04	4.91
SPQ	X	18.30	29.25	26.20	41.90	36.70
	SD	8.32	14.90	14.84	19.54	17.46
SCQ	X	26.65	35.83	42.75	54.50	51.15
	SD	10.98	14.07	12.05	13.40	16.50
ATI (P)	X	29.21	21.35	23.05	21.00	19.35
	SD	6.45	5.24	6.97	6.70	7.01
ATI (N)	X	15.30	23.25	21.61	26.05	22.75
	SD	6.52	5.96	7.04	8.74	8.25
BSQ	X	17.4	25.1	2.24	2.97	2.09
	SD	4.55	6.20	6.02	3.81	3.28

*** – Normal controls differ from the remaining group

N – Normal control, SP – Simple phobia, GAD – Generalized anxiety disorder,

AG+P – Agoraphobia with panic attacks, PD – Panic disorder

more anxious and depressed than all other groups, whereas the normal control group was significantly less anxious and depressed than the anxiety disordered groups.

The Agoraphobic and Panic group assigned higher cost (negative valence) and probability scores to unpleasant events and, in general, found anxiety most discom-

Table 3

**Means and Standard Deviations for Beck Depression Inventory (BDI)
and State-Trait Anxiety Inventory (STAI) for All Groups**

Groups	n	BDI		State Anxiety		Trait Anxiety	
		<i>X</i>	SD	<i>X</i>	SD	<i>X</i>	SD
1 N	20	5.05	4.72	32.21	10.57	31.90	8.76
2 SP	20	8.95	5.73	43.45	9.72	42.10	9.65
3 GAD	20	11.45	5.92	43.50	12.08	44.80	9.18
4 AG+P	20	15.05	6.00	56.20	14.21	53.90	13.42
5 PD	20	15.75	5.24	59.71	12.64	54.80	10.31

n=100

(1) N=Normal Control, (2) SP=Simple Phobia, (3) GAD=Generalized Anxiety Disorder, (4) AG +P=Agoraphobics with Panic Attacks, (5) PD=Panic Disorders.

forting with a high level of concern for its consequences. Their susceptibility to threat by ambiguous situations involving both internal and external stimuli was higher than any other group and demonstrated the greatest concern for bodily sensations that were particularly associated with autonomic arousal. Secondary to the Agoraphobia and Panic Disorder groups were the Simple Phobia and Generalized Anxiety Disorder groups. These groups appeared to demonstrate few differences except in the area of concern for the consequences of anxiety which proved to be significantly higher for the Simple Phobia group than the Generalized Anxiety Disorder group. Both groups were consistently less anxious and less depressed than the Agoraphobia and Panic Disorder groups; however, they had significantly higher scores across all measures than did the Normal Control group. The Panic Disorder group demonstrated the highest number of correlations on measures involving fear-of-fear, which was somewhat expected. The Agoraphobia group, on the other hand, had significantly fewer correlations than the Panic Disorder group, which was not expected. The Generalized Anxiety Disorder group almost equaled the Agoraphobia group, which was surprising since generalized anxiety disorder involves no fear-of-fear component. Both the Agoraphobia and Generalized Anxiety Disorder groups, as well as the Panic Disorder group, had significantly more correlations than did the Simple Phobia group. This was again predicted. All measures involving the assessment of fear-of-fear (BSQ, ASI, SCQ, SPQ, INTQ) correlated highly with those groups involving fear-of-fear syndrome in addition to a group involving no fear-of-fear.

In attempts to assume that the results were attributed to differential levels of anxiety or depression, analyses of covariance were performed. In general, the results proved to be robust.

Significant group differences remained on the SCQ [F covaring anxiety (4,94) = 5.021, $p < .001$], [F covaring depression (4,94) = 5.412, $p < .001$]; SPQ [F covaring

anxiety (4,94) = 4.224, $p < .003$]; INTQ (1A) [F covaring anxiety (4,94) = 3.828, $p < .006$], [F covaring depression (4,94) = 4.635, $p < .002$]; INTQ (1B) [F covaring anxiety (4,94) = 2.657, $p < .038$], [F covaring depression (4,94) = 4.059, $p < .004$]; INTQ (2B) [F covaring anxiety (4,94) = 3.235, $p < .016$], [F covaring depression (4,94) = 4.30, $p < .003$]; BSQ [F covaring anxiety (4,94) = 2.593, $p < .041$], [F covaring depression (4,94) = 4.711, $p < .002$]; ASI [F covaring anxiety (4,94) = 8.722, $p < .001$], [F covaring depression (4,94) = 11.017, $p < .001$].

Two variables [ATI (P) and ATI (N)] became marginal when anxiety was covaried, but not depression: ATI (N) [F covaring anxiety (4,94) = 2.258, $p < .069$], [F covaring depression (4,94) = 3.034, $p < .021$]; ATI (P) [F covaring anxiety (4,94) = 2.035, $p < .096$], [F covaring depression (4,94) = 2.914, $p < .025$]. INTQ (2A) became marginal for both anxiety and depression: [F covaring anxiety (4,94) = 2.033, $p < .096$], [F covaring depression (4,94) = 2.124, $p < .084$].

For the variables SPQ (Ag), covaring anxiety eliminated the main effect for groups: [F covaring anxiety (4,94) = 1.855, $p < .125$]. When depression was covaried, the main effect was not eliminated: [F covaring depression (4,94) = 2.786, $p < .031$].

The marginal main effect for group for SCQ may become nonsignificant with either covariate: [F covaring anxiety (4,94) = 1.708, $p < .155$], [F covaring depression (4,94) = 1.661, $p = .166$].

Discussion

The present study compared the manner in which several anxiety-disordered groups interpreted danger related to bodily sensations and to external events. Also examined was the concept of whether or not levels of anxiety and depression existed more predominantly in some groups than in others.

Demographically, the only significant difference among groups was age of onset which occurred at a significant earlier age for simple (specific) phobics and was consistent with the previous literature [22, 40, 42, 53, 55].

With respect to the age of onset for the remaining clinical groups, the results support previous findings involving samples of generalized anxiety disorder subjects which cite that a greater prevalence exists with advancing age [4, 30, 46, 54].

It is relatively uncommon to find an onset agoraphobic prior to the age of 16 or after the age of 40 [10]. Foa et al. [25] suggested that several personality factors associated with the syndrome (e.g., dependency) may underlie the age of onset. They suggested that late adolescence marks the initial set of requirements for independence as established by society, with which comes a new set of responsibilities. An increase in demands also occurs again from the mid-twenties to the early thirties. It is believed that these demands contribute heavily to the onset of anxiety disorders.

With the simple (specific) phobics, several hypotheses may be formulated as to why age of onset begins so early. McNally and Steketee [44] suggested that many individuals who currently have simple phobias also had them as children. Those who carry their phobias into adulthood may do so because of a low anxiety tolerance which may cause them to engage in excessive avoidance behaviors. Perhaps early manifestations

of agoraphobia are expressed as school phobia or fear of separation from parents which at the time can be conceptualized as another simple phobia. Later, the specific fear may develop into a more elaborate system of fear-of-fear which is labeled as agoraphobia with panic attacks or panic disorder.

An alternative hypothesis might also be that simple (specific) phobia differs from agoraphobia and panic disorder in that its etiology is less connected with difficulties in interpersonal relationships [29]. Perhaps children place less importance on interpersonal relationships than do adults, which would make the likelihood of developing panic disorder or agoraphobia in childhood significantly reduced.

With regard to the results obtained on the relationship between anxiety and depression, the present study demonstrates that the Agoraphobia and Panic Disorder groups were significantly more depressed and more anxious than were Generalized Anxiety Disorder, Simple Phobia, and Normal Control groups.

The close relationship between anxiety and depression has been the focus of interest in much of the psychiatric literature [25, 58, 59, 64, 68]. In fact, the blend of anxiety and depressive features is perhaps the most common syndrome in emotional disorders observed in the majority of outpatient psychiatric populations [47]. Foa and Foa [23] presented an interesting overview of the controversy in the literature regarding the distinction between anxiety and depression. They pointed out that many of the diagnostic criteria used to classify a patient as depressive also include symptoms of anxiety. Although literature exists both to support the two syndromes as separate entities [23, 37, 38, 52] as well as to give evidence of a high joint occurrence [21, 34, 36], the controversy currently remains open. There is a continual emphasis for researchers to improve instruments for measuring anxiety and depression and to reduce the overlap that exists between them.

Because of the close relationship that exists between anxiety and depression, one would expect that agoraphobic and panic-disordered individuals would be as highly anxious as they would be depressed. In fact, it was found that high levels of both depression and anxiety did exist among agoraphobic populations [23, 32, 33, 39]. Because agoraphobic individuals are more avoidant, it was expected that they might show higher levels of anxiety and depression as compared to other anxiety-disordered groups. Surprisingly, the results did not concur with the predicted hypothesis, indicating that no differences existed on any measures assessing either anxiety or depression for the two groups. Much of this may be due to the existing overlap of symptoms reported in panic and agoraphobic disorders [57, 60]. In DSM-III-R (1987) agoraphobia and panic disorder are conceptualized as two different disorders. They have often been described as highly homogeneous with respect to the patterns of symptoms they present, and these symptoms tend to be present in variable combinations across different anxiety-disordered categories [53, 67].

In studying these two populations, Thyer, Himle, Curtis, Cameron, and Nesse [61] examined 40 subjects (20 panic disorders and 20 agoraphobics) for demographic, psychometric, and clinical comparisons; very few differences were found, particularly

in the area of anxiety symptoms. Similarly, Turner, Williams, Mezzich, and Beidel [68] also found substantial overlap with regard to symptomatology in both panic and agoraphobic subjects when compared for differences. Garvey and Tuason [27] found agoraphobia with panic attacks and panic disorders to be two conditions virtually indistinguishable.

With respect to level of depression, the majority of the literature makes more reference to the overlapping symptoms of anxiety rather than depression. In the few articles comparing depressive traits among agoraphobics and panic disorders [48, 63], there were no reports of significant differences in levels of depression between the two. Gardos [26] found agoraphobics to evidence depressive symptoms more often than do other "anxiety neurotics" (52% and 36%, respectively). His population of "other anxiety neurotics", however, consisted of generalized anxiety disorders and simple phobics but did not include panic disorders. This is also consistent with previous literature which reported a higher incidence of depression among agoraphobics when compared to other anxiety disorders [10, 41]. Once again, however, neither population specifically contained panic-disordered subjects. These populations constituted generalized anxiety disorders, simple phobics, and social phobics. Therefore, it was appropriate in this study to compare the differences using a sample of panic-disordered subjects in order to determine specific characteristics which may aid more clearly in defining them as discrete diagnostic entities.

The results of this study support the literature comparing depression and anxiety in agoraphobia and other anxiety disorders. Agoraphobia and Panic Disorder groups demonstrated significantly more anxiety and depression than Simple Phobia, Generalized Anxiety Disorder, and Normal Control groups. Previous researchers also found panic-disordered individuals to be more anxious and depressed than generalized anxiety disorders [2, 31]. While Agoraphobia and Panic Disorder groups were paired closely by the results, the Simple Phobia and Generalized Anxiety Disorder groups paired similarly well, showing similar responses to both anxiety and depression except in the area of concern for the consequences of anxiety which was significantly higher for the Simple Phobia group.

With regard to the major focus of this study, the results support that panic disordered individuals differ in their perception and interpretation of bodily sensations.

In general, they were more anxiety prone and more sensitive to stressful situations than were Generalized Anxiety Disorder and Simple Phobia groups. This was particularly so with both internal and external situations that appeared to them as being intensely dangerous. They also demonstrated the greatest concern for bodily sensations that were particularly associated with autonomic arousal.

These results partly support Foa and Kozak's [24] hypothesis that fear structures do vary across anxiety disorders and that they possess different fear structures. McNally and Foa [44] found the same results with agoraphobics. Subsequent to treatment, however, they were no different than normals. The results are congruent with Butler and Mathews' [12] findings that subjects who experience clinical anxiety states are likely to overestimate personal danger.

Both Panic Disorder and Agoraphobia subjects were most concerned with bodily

sensations associated with autonomic arousal; therefore, it is understandable that their expectations of anticipated harm would be high, based on previous literature which indicates that anticipated harm stems directly from internal sensations of anxiety and panic [25, 44]. Reiss and McNally [49] also hypothesized that individuals who believe that anxiety has terrible effects tend to anticipate severe consequences.

The notion of concern for internal bodily sensations underlies the basis for the fear-of-fear hypothesis originally proposed by Goldstein and Chambless [29]. The model includes maladaptive cognitions concerned with the potential harm that will befall the agoraphobic because of anxiety, as well as an exaggerated fear response initiated by autonomic activity. Goldstein and Chambless [29] suggested that because the cues for this fear response are internal and portable, they lead to a fear-of-fear which gives way to a rapid generalization of the response. The authors also found that agoraphobics could be distinguished from other phobics because of their fear-of-fear response.

The results of the correlational analysis in this study conflict with Goldstein and Chambless' [29] theory. It was hypothesized that groups which were high on fear-of-fear would show higher correlations on measures of fear-of-fear than groups which have no fear-of-fear. Surprisingly, a large discrepancy existed in the number of correlations between the Agoraphobia (25) and Panic Disorder (35) groups. Based on the additional results of this study, it would have been expected to be consistent with other characteristics which showed both groups as the same.

In addition, the Generalized Anxiety Disorder group (22) showed almost the same number of correlations as the Agoraphobia group (25). This is somewhat peculiar because Generalized Anxiety Disorder possesses no fear-of-fear component according to Goldstein and Chambless [29]. This may imply either that panic-disordered individuals possess a greater potential for fear-of-fear or that the individual inventories in this study were tapping something other than fear-of-fear components. Perhaps there exists a fear-of-fear concept that is present with other anxiety disorders but to a lesser degree than that which appears with agoraphobia and panic disorders. The difference in magnitude may be attributable to the increased level of anxiety and depression found in both agoraphobia and panic disorders.

Overall, the results of this study are important in understanding the differences in the cognitive responses to fear among anxiety disorders and has aided in differentiating levels of anxiety and depression among the diagnostic subtypes.

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